

REMARKS

The Office Action Made Final mailed on May 31, 2002, has been received and reviewed. Claims 1-3, 5, 7-27, 29, 31-33 are pending in the above-referenced application. All claims stand rejected. Applicant proposes to amend claims 10, 20, 25, 26, 27, 29, 31, 32 and 33. Reconsideration of the above-referenced application is respectfully requested.

Rejections Under 35 U.S.C. § 103(a)

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Other factors, including a high level of commercial success, evidence of copying by others, and long-felt but unmet needs, have long been considered to be indicia of nonobviousness.

Rejections under 35 U.S.C. § 103(a) in view of U.S. Patent 4,722,815 to Shinbanai and U.S. Patent 4,293,602 to Coffey et al.

The rejection of claims 1-3, 5, 7, 8, 10-27, 29 and 31 rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over what is old and well known in bowling balls (hereinafter "the bowling ball art") in view of U.S. Patent 4,722,815 to Shinbanai (hereinafter "Shinbanai") was maintained from the prior Office Action and further in view of U.S. Patent 4,293,602 to Coffey et al. (hereinafter "Coffey"). It is respectfully submitted that the arguments that are set forth in the outstanding Office Action do not amount to a *prima facie* case of the obviousness of any of claims 1-3, 5, 7, 8, 10-27, 29 and 31, as presented herein.

The Office Action Made Final states:

"While Shinbanai does not detail the old and known methods of 'mixing perfume' and 'direct addition of perfume' that is at least partially dissolved within the resin, such are considered old when one further considers Coffey et al. as an example. Coffey teaches that it is an old expedient and would have been obvious to mix fragrances to two part resins in the forming of a fragrances polymer product." (Office Action Made Final at page 2).

However, an examination of Coffey reveals that the fragrances provided therein are either emitted from a natural botanical material, such as flowers or buds, or an essential oil absorbed into the natural botanical material (or an accompanying fixative). The botanical material is then blended with a resin to create a fibrous dispersion that interlocks the botanical material when molded. The molded mixture is a damp dough including a single part resin that is compression molded or extruded and then baked to cure, maintaining a low temperature to protect the botanical material. See Coffey at column 4, line 15 to column 5, line 19. If anything, Coffey teaches away from the inventions of the present claims by using a single-part resin which is cured by a low temperature baking, such that fragrances are never submitted to the high temperatures involved in an exothermic two part resin reaction. Applicant thus respectfully submits that the claims define over the cited references and requests they be allowed.

Further, Applicant respectfully submits that one of ordinary skill in the art of manufacturing bowling balls would not be motivated to both combine and alter the teachings of the cited references to arrive at the present invention. As discussed in the present specification, bowling balls are generally composed of polyurethane materials. A bowling lane is a hardwood surface, typically coated with a wax or oil to reduce friction.

As a bowling ball is thrown or rolled down a bowling lane, a spin is sometimes placed on the ball either by the player or by the central gravity of the ball. This causes the ball to "hook" somewhat diagonally across the lane. In order to successfully hit the pins to obtain a strike, the ball must contact the pin formation in one of a few specific locations. Similarly, in order to hit specific pins, the "hook" of a ball must be known, so that appropriate spin may be generated. For each bowling ball, the "hooking" ability is determined by the interaction of the ball surface with the lane. While each bowling ball should have the same "hook", in practice, any substance added to a bowling ball changes the porosity, the

density or other aspects of the bowling ball surface, altering the manner in which the bowling ball spins and, thus, the "hook" of the bowling ball. Players are known to select balls based on manufacturer and even color in order to maximize their ability to throw the ball correctly and consistently. One of ordinary skill in the art would know that adding any additional substance to a bowling ball would alter the surface of the ball, causing it to roll differently and "hook" sooner or later as it rolls down the lane. Accordingly, one of ordinary skill in the art would not be motivated to add fragrance to the material of the bowling ball, as it would alter the known playability of the bowling ball in a highly unreliable manner.

Accordingly, Applicant respectfully submits that independent claim 1 is not obvious in view of the cited prior art for the reasons discussed previously herein and those presented in the Amendment filed in response to the earlier Office Action. Applicant requests this rejection should be withdrawn and the claim 1 be allowed. Similarly, claims 2, 3, 5, 7, and 8 are each allowable, among other reasons, as depending from claim 1, which is allowable.

With respect to independent claim 10, as proposed to be amended herein, it is respectfully submitted that, for the same reasons provided above with respect to independent claim 1, one of ordinary skill in the art would neither have been motivated to combine the well-known teachings in the bowling ball art with the teachings of the cited references in the manner that has been asserted in the Office Action Made Final, as such a combination would alter the playability of the resulting bowling ball.

Accordingly, it is respectfully submitted that no *prima facie* case of obviousness has been set forth with respect to the subject matter recited in amended independent claim 10. Further, each of claims 11-19 is allowable, among other reasons, as depending either directly or indirectly from claim 10, which is allowable.

Independent claim 20, as proposed to be amended herein, recites a method for forming a bowling ball that includes, among other things, providing a polyol, blending at least a fragrance into the polyol, substantially removing gas or gas bubbles from a mixture including the polyol and the fragrance, introducing the mixture and a polymerization catalyst therefor into a cavity of a mold, and permitting a

blend that includes the polyol and the polymerization catalyst to at least partially polymerize to form the article of manufacture.

It is respectfully submitted that the art cited by the Office fails to teach or suggest a method for forming an bowling ball which includes blending at least one fragrance directly into a polyol. Further, for the same reasons provided above with respect to independent claim 1, one of ordinary skill in the art would not have been motivated to combine the well-known teachings in the bowling ball art with the teachings of Shinbanai or Coffey in the manner that has been asserted in the Office Action Made Final nor have a reasonable expectation that such a combination would successfully result in the method of amended independent claim 20.

Claims 21-26 are each allowable, among other reasons, as depending either directly or indirectly from claim 20, which is allowable.

With respect to independent claim 27, as proposed to be amended herein, recites a bowling ball that includes "a substantially rigid, substantially nonporous mass comprising a two-part resin" and "fragrance within at least a portion of [the] two-part resin."

It is respectfully submitted that amended independent claim 27 is allowable for the same reasons that have been provided herein with respect to amended independent claim 1, that one of ordinary skill in the art would not have been motivated to combine the teachings in the bowling ball art with those of the cited references due to the possible deleterious effects on the playability of the resulting ball. It is, therefore, respectfully submitted that independent claim 27, as proposed to be amended herein is allowable with claims 29 and 31 both allowable, among other reasons, as depending therefrom.

Rejections under 35 U.S.C. § 103(a) in view of U.S. Patent 4,722,815 to Shinbanai and U.S. Patent 4,293,602 to Coffey et al and further in view of U.S. Patent 4,762,493 to Anderson.

Claims 9, 32, and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the bowling ball art, in view of Shinbanai, and further in view of Coffey, and further in view of U.S. Patent 4,762,493 to Anderson (hereinafter "Anderson").

Independent claims 1 and 27 define over the teachings of Shinbanai and Coffey, as summarized above. Anderson teaches scented crayons and that the scents of crayons may correspond to their colors.

Claim 9 is allowable, among other reasons, as depending from claim 1, which is allowable. Claim 9 is further allowable since Anderson does not remedy the above-noted deficiencies of the bowling ball art or provide a motivation for altering the surface of (and thereby the playability of) a bowling ball.

Claims 32 and 33 are both allowable as respectively depending directly and indirectly from claim 27, which is allowable. Claims 32 and 33 are additionally allowable because Anderson does not remedy the above-noted deficiencies of the bowling ball art or provide a motivation for altering the surface of (and thereby the playability of) a bowling ball.

In view of the foregoing, it is respectfully requested that the proposed amendments be entered and the 35 U.S.C. § 103(a) rejections of claims 1, 2, 5, 7-27, 29, and 31-33 be withdrawn.

ENTRY OF AMENDMENTS

The proposed amendments to the claims above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application. Further, the amendments do not raise new issues or require a further search. Finally, if the Examiner determines that the amendments do not place the application in condition for allowance, entry is respectfully requested upon filing of a Notice of Appeal herein.

CONCLUSION

It is respectfully submitted that each of claims 1, 2, 5, 7-27, 29, and 31-33 is allowable, as proposed to be amended herein. An early notice of the allowability of each of these claims is respectfully solicited, as is an indication that the above-referenced application has been passed for issuance. If any issues preventing the allowance of any of claims 1, 2, 5, 7-27, 29, and 31-33 remain which might be resolved by way of a telephone conference, the Office is kindly invited to contact the undersigned attorney.

Respectfully submitted,



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Enclosure: Version with Markings to Show Changes Made

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend the claims as follows:

10. (Two Times Amended) A method for manufacturing a bowling ball, comprising:
providing a liquified material;
blending at least one fragrance directly into said liquified material;
introducing said liquified material and said at least one fragrance into a cavity of a mold; and
curing said material with said at least one fragrance therein to form a bowling ball.

20. (Three Times Amended) A method for forming [an article of manufacture] a bowling ball, comprising:
providing a polyol;
blending at least a fragrance directly into said polyol;
substantially removing gas or gas bubbles from a mixture including said polyol and said fragrance;
introducing said mixture and a polymerization catalyst therefor into a cavity of a mold; and
permitting a blend including said polyol and said polymerization catalyst therefor to at least partially
polymerize to form the [article of manufacture] bowling ball.

25. (Amended) The method of claim 20, further comprising removing the [article of
manufacture] bowling ball from said cavity.

26. (Amended) The method of claim 25, further comprising removing irregularities from the
[article of manufacture] bowling ball.

27. (Two Times Amended) [An article of manufacture] A bowling ball, comprising:
a substantially rigid, substantially nonporous mass comprising a two-part resin; and

fragrance at least partially dissolved within at least a portion of said two-part resin.

29. (Two Times Amended) The [article] bowling ball of claim 27, wherein at least a portion of said fragrance is dispersed throughout said two-part resin of at least a portion of said mass.

31. (Two Times Amended) The [article] bowling ball of claim 27, wherein said two-part resin comprises a two-part polyurethane.

32. (Amended) The [article] bowling ball of claim 27, further comprising a pigment.

33. (Amended) The [article] bowling ball of claim 32, wherein a scent of said fragrance correlates with a color of said pigment.

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